

Figure 1. A diagram of the system employed in the practice of the present invention.

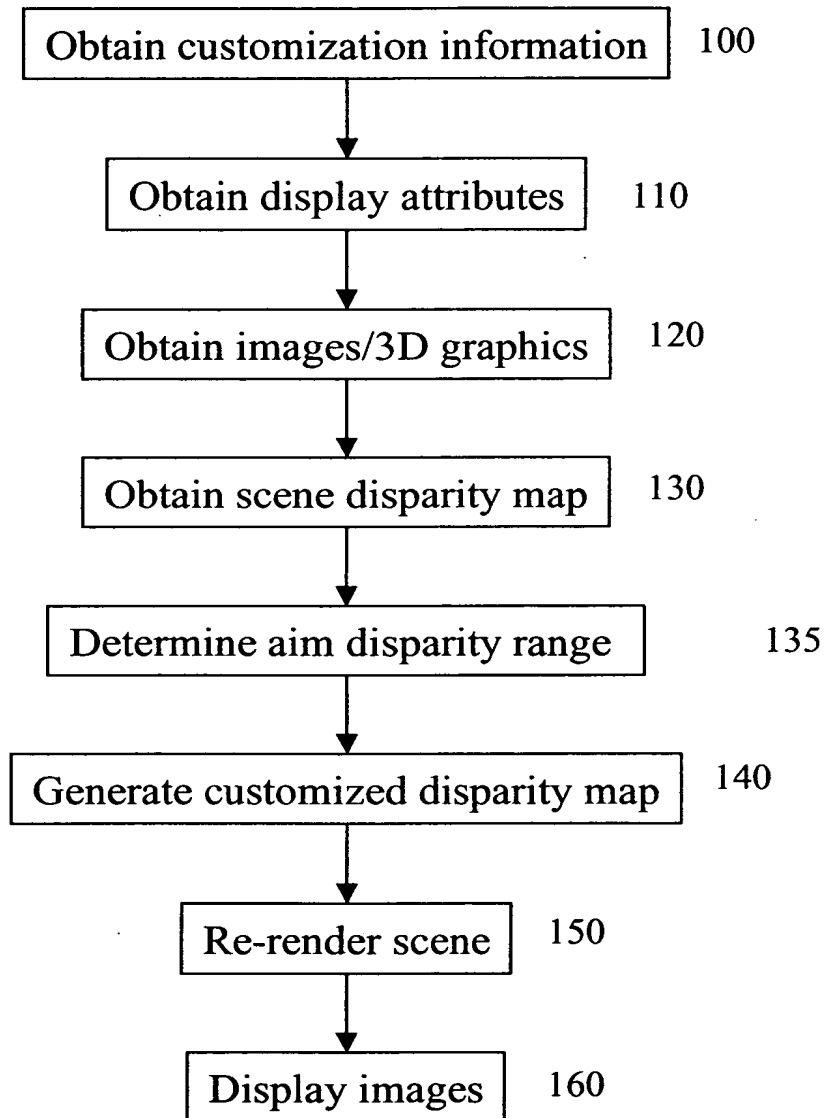


Figure 2. A flow chart showing the steps of the method of the present invention.

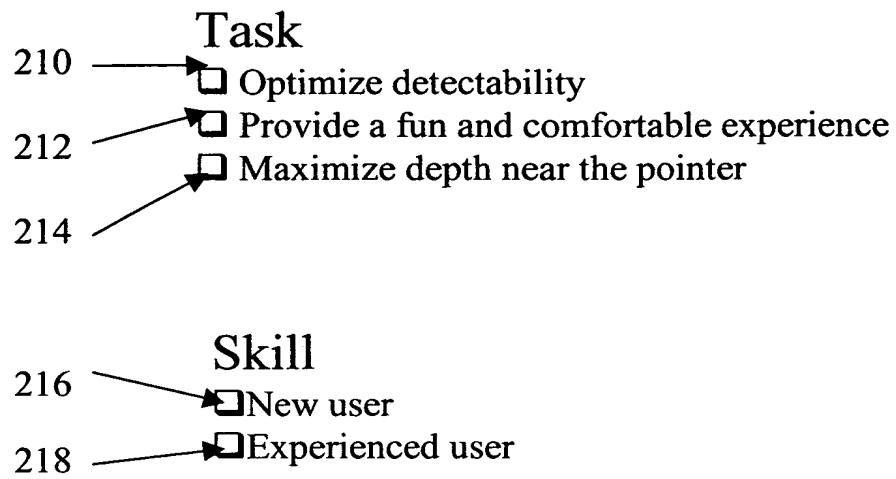
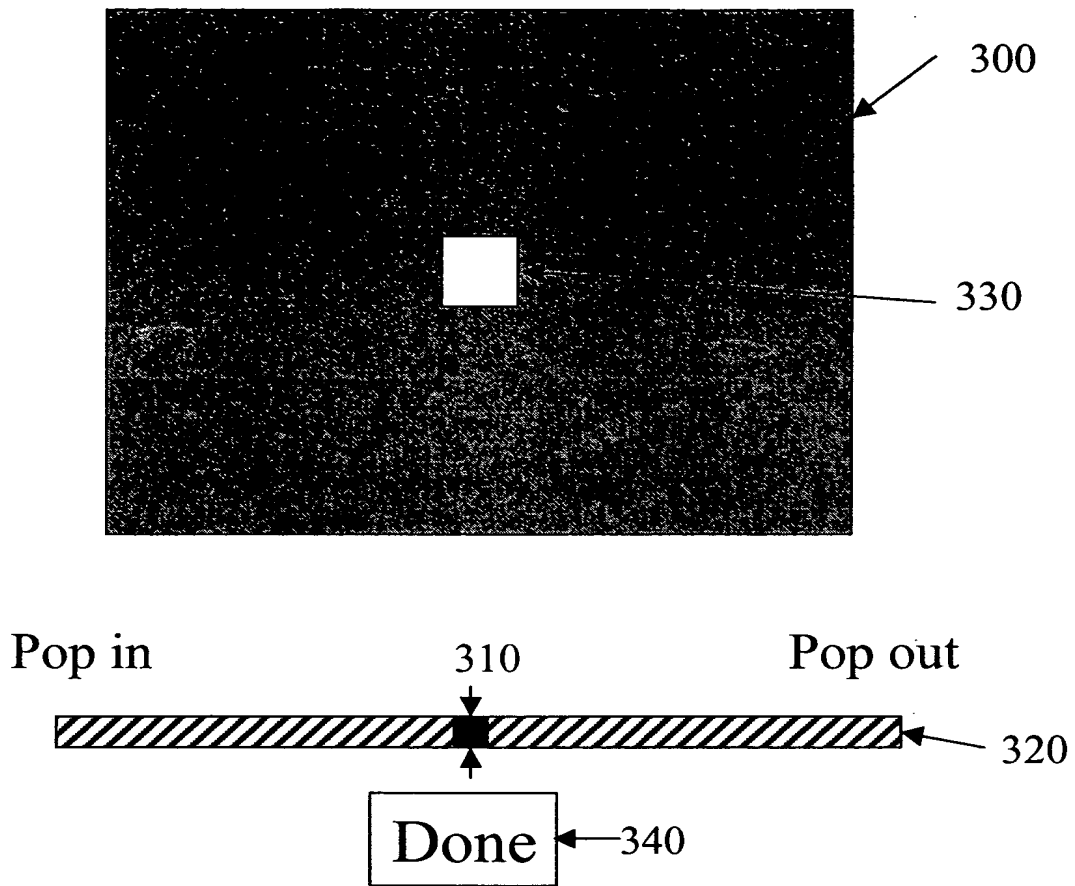


Figure 3. An example user interface screen for inputting the rendering intent.



Instructions: Fixate at the square in the center. Use your mouse to move the slider bar to the right until you no longer see a single square. Click 'Done'. Then move the slider bar to the left until you no longer see a single square. Click 'Done'.

Figure 4. An example graphical user interface for on-display measurement of user stereo fusing capability.

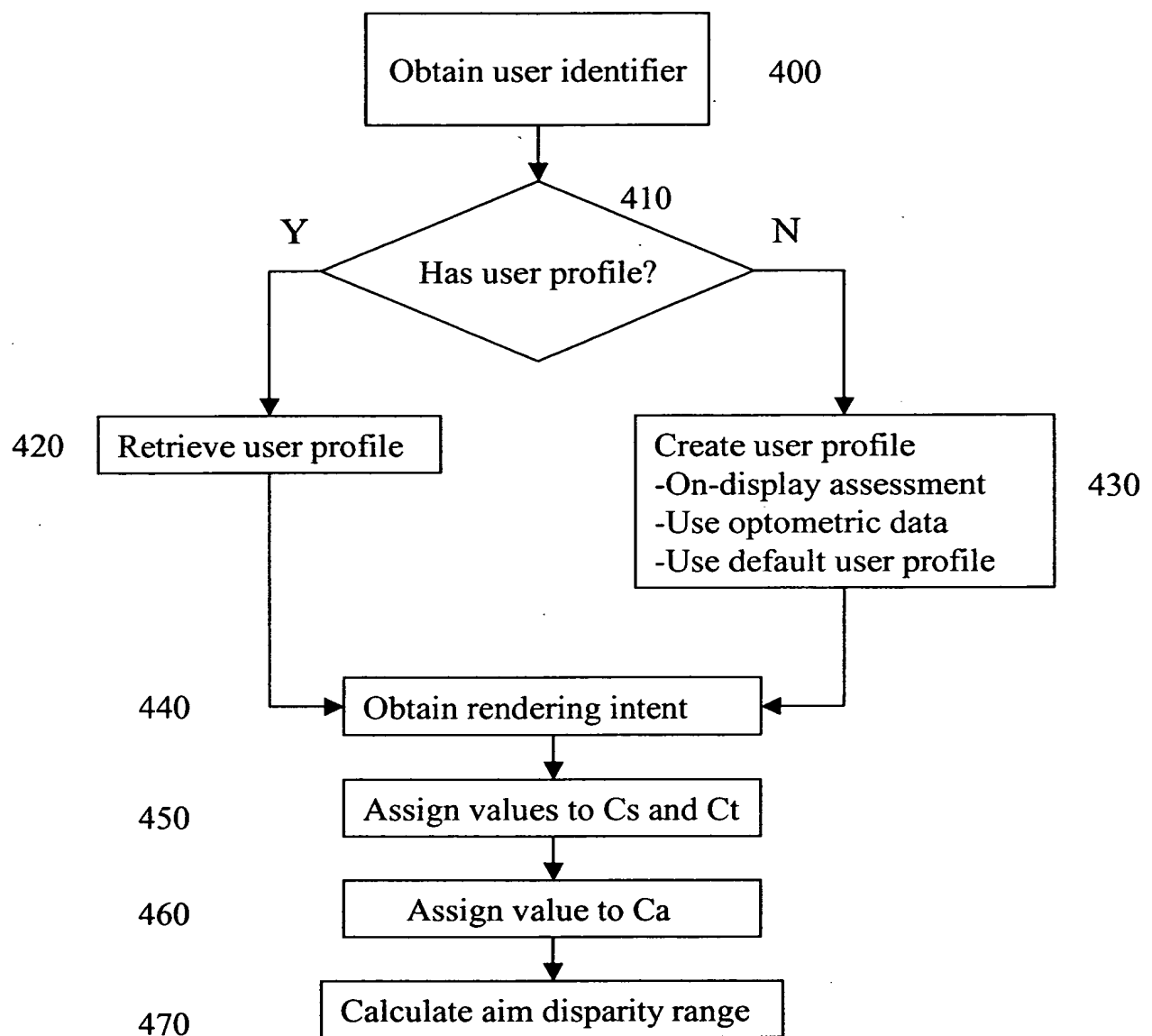


Figure 5. A flow chart showing the steps of determining the aim disparity range.

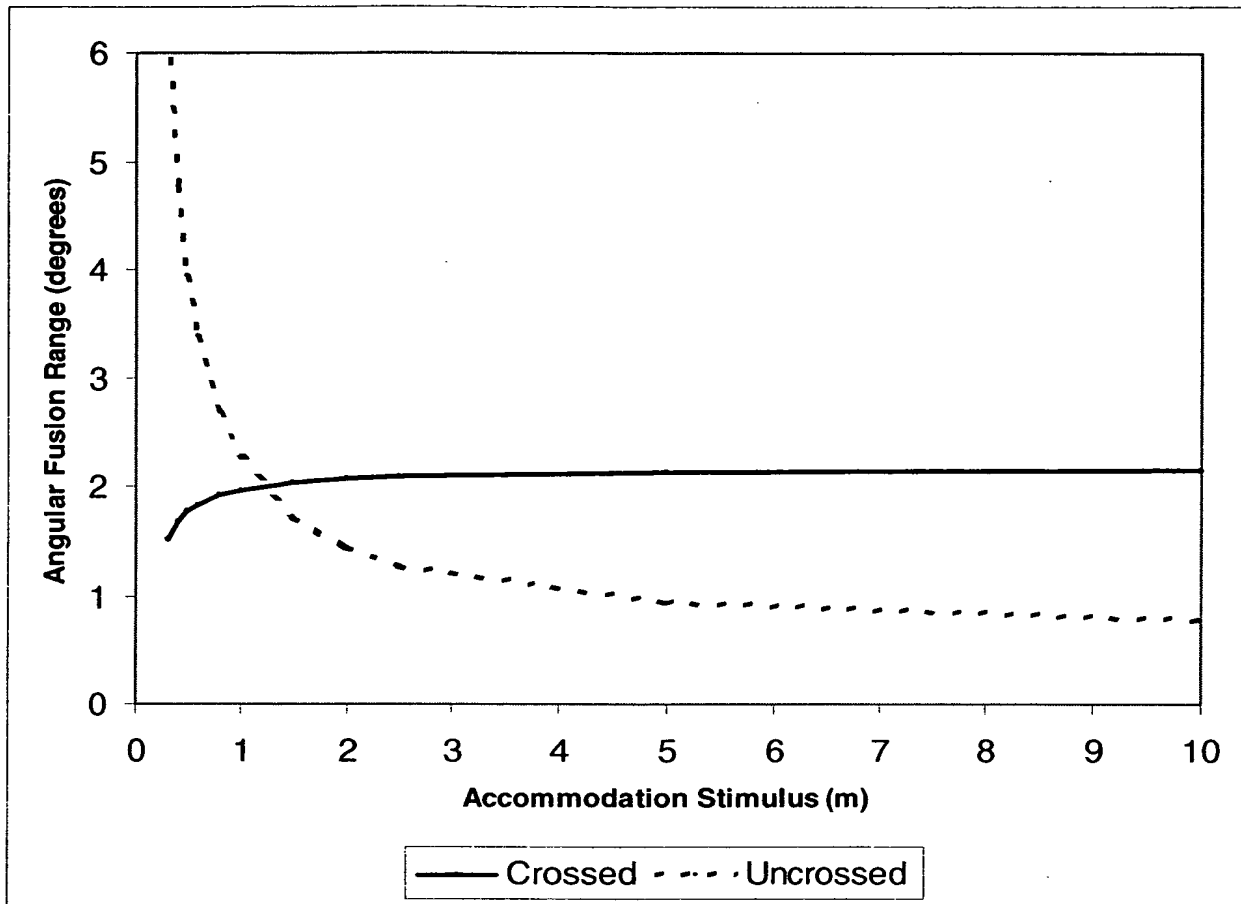


Figure 6. A graphical illustration of the default range of disparity as a function of the viewing distance.

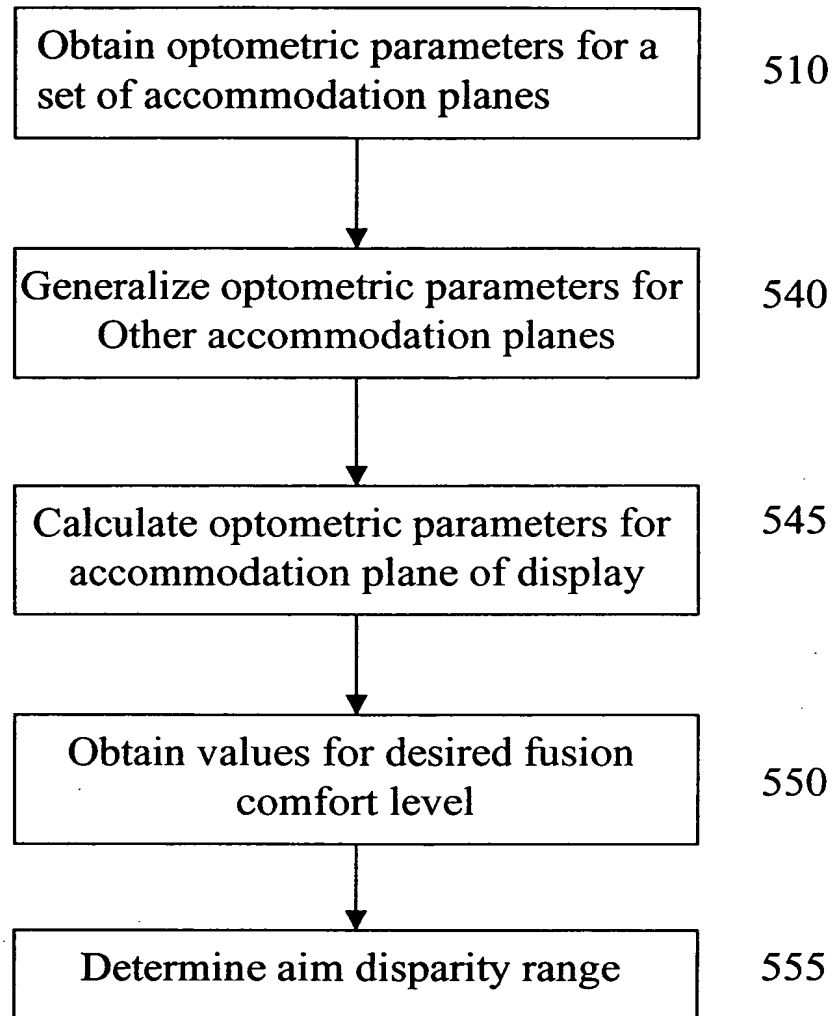


Figure 7. A flow chart showing the steps of a method to determine the aim disparity range based on optometric data.

Optometric parameters:

512	<input type="text"/>	Interpupillary distance (<i>mm</i>)
514	<input type="text"/>	Near testing distance (<i>m</i>)
516	<input type="text"/>	Distant testing distance (<i>m</i>)
518	<input type="text"/>	Near phoria (<i>prism diopters</i>)
520	<input type="text"/>	Distant phoria (<i>prism diopters</i>)
522	<input type="text"/>	Near base-out fusional reserve (<i>prism diopters</i>)
524	<input type="text"/>	Near base-in fusional reserve (<i>prism diopters</i>)
526	<input type="text"/>	Distant base-out fusional reserve (<i>prism diopters</i>)
528	<input type="text"/>	Distant base-in fusional reserve (<i>prism diopters</i>)

530

Figure 8. An example user interface for inputting optometric data.

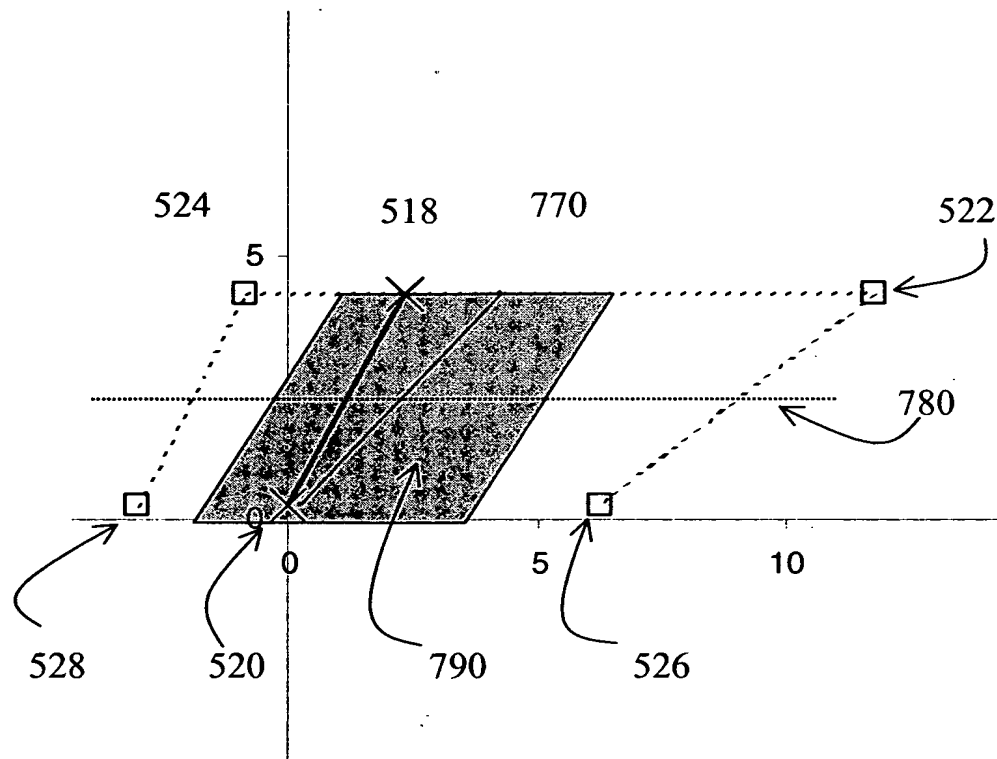


Figure 9. An illustration plot representing optometric data.

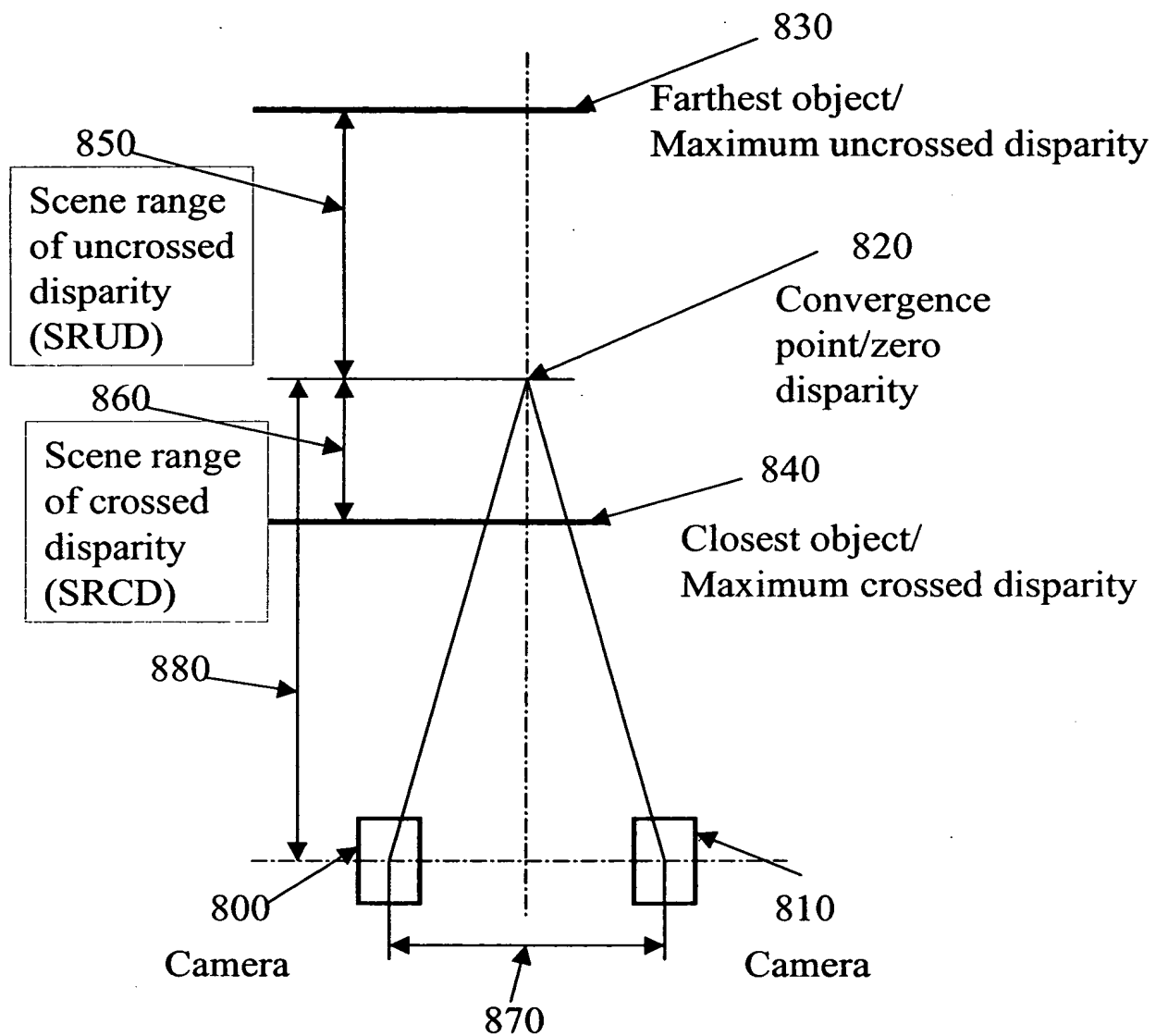
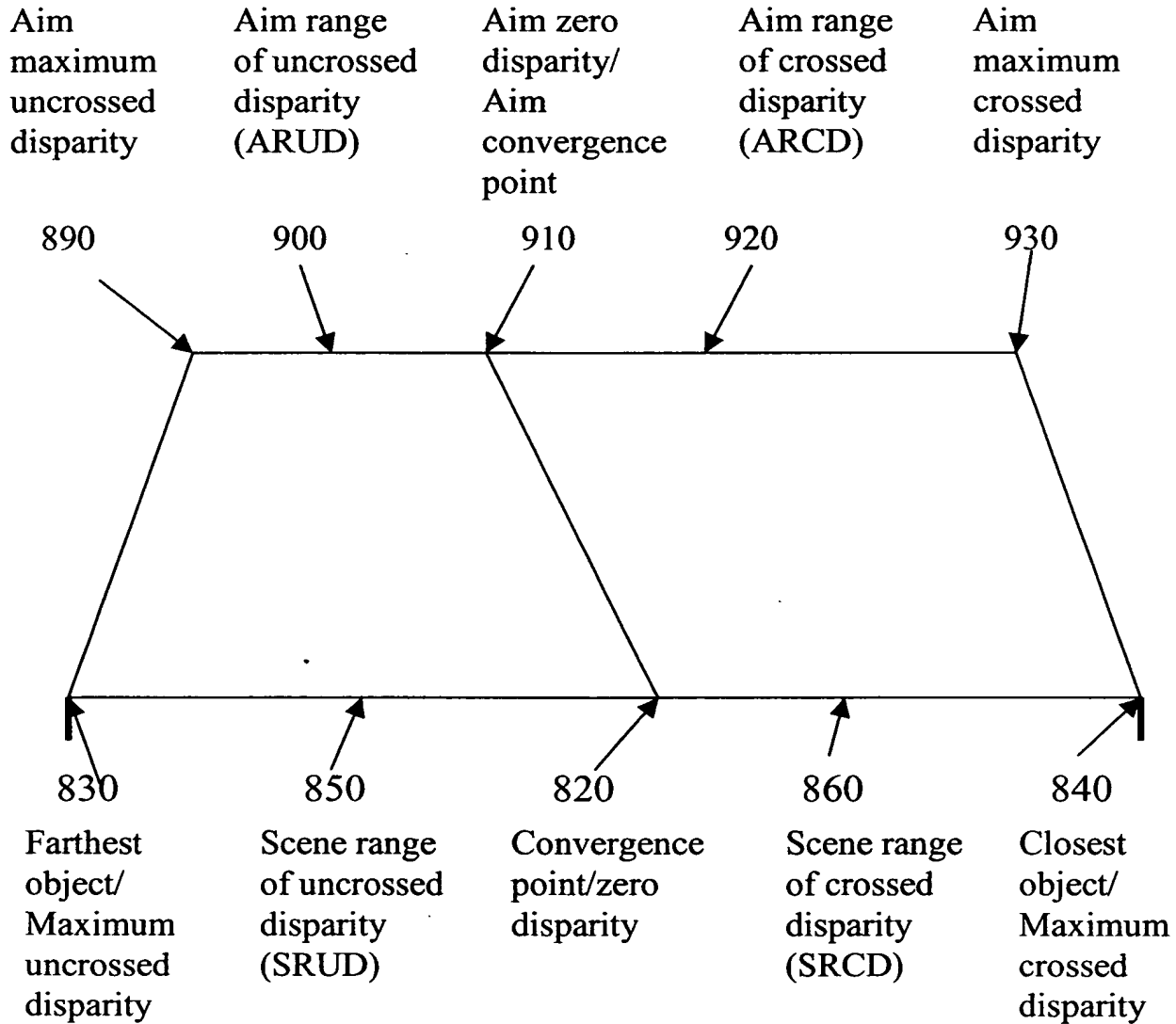


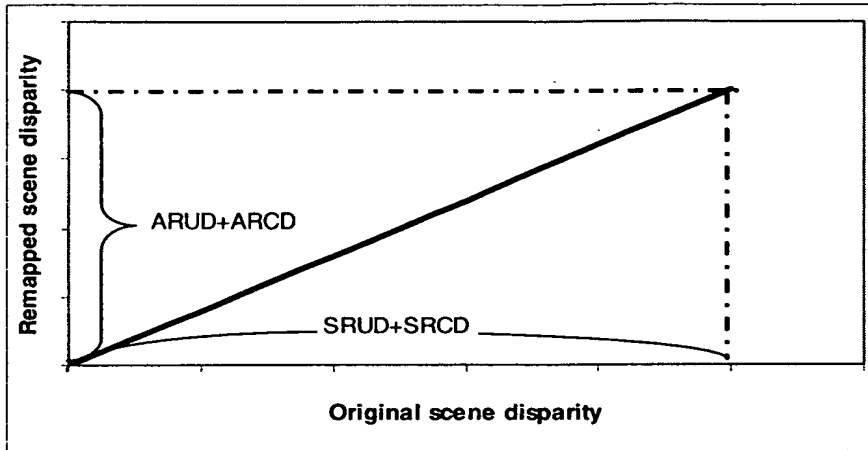
Figure 10. The relationship of the spatial arrangement of the cameras, the scene depth range, and the corresponding scene disparity range

Aim disparity range

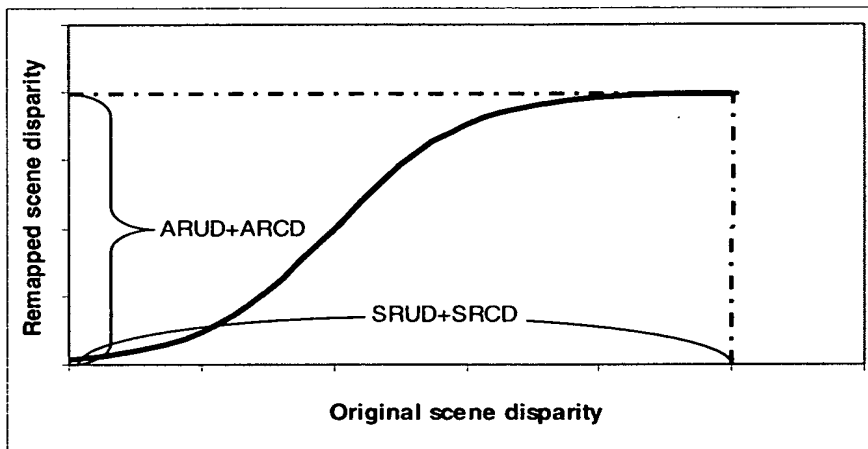


Scene disparity range

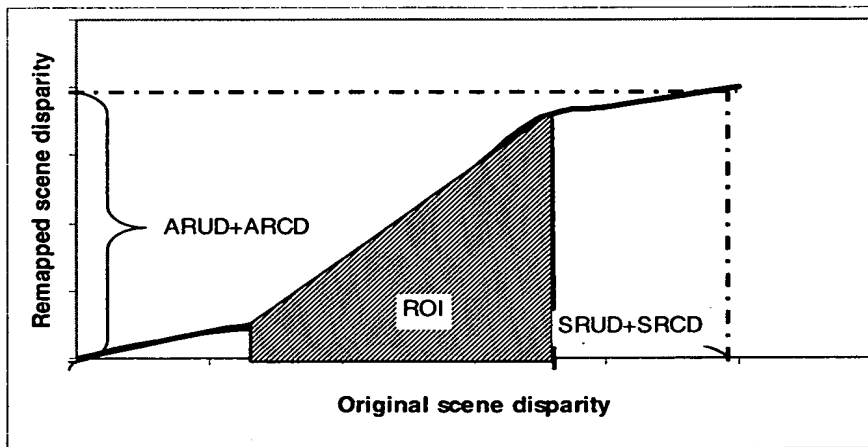
Figure 11. An illustration of remapping between scene disparity and aim disparity range.



(a)
Linear mapping



(b)
Nonlinear mapping



(c)
Linear mapping
+ ROI

Figure 12. Three ways of performing disparity remapping.